

Team Member's Names: Alaina and Rachael  
School: Mount Vernon Middle School, Mount Vernon, IA  
Teacher: Mrs. Searce

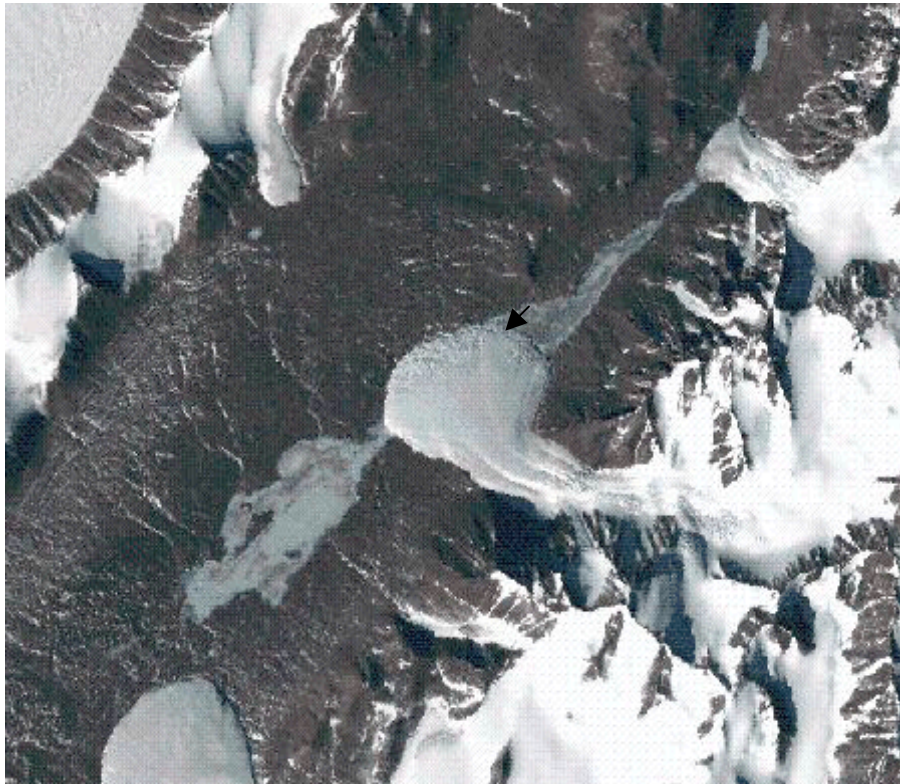
Proposal:

1. The name and/or description of your chosen ice feature

We chose to research Maria Creek. Its ice feature is a stream. This is from the description on Lima:

A glacial meltwater stream, 0.5 mi long, which flows from the snout of Canada Glacier in Taylor Valley, Victoria Land. It drains NE, close to the glacier, entering the W end of Lake Fryxell to the W of Bowles Creek and Green Creek. The name was suggested by Diane McKnight, USGS hydrologist working in the Lake Fryxell basin, 1987-94, and alludes to the many aeolian deposits of fine sands along the creek, indicative of strong winds blowing around the S end of Canada Glacier during the winter. Named from "They Called the Wind Maria," a song in Paint Your Wagon, the American musical play by Lerner and Loewe.

2. An image of your chosen ice feature



3. The location of your selected feature in terms of its longitude and latitude as well as the region of Antarctica in which it exists. (Teams are encouraged to include a map of Antarctica with a mark pinpointing the location of their selected feature).

**Latitude: 77.616667 Longitude: 163.05**



4. A paragraph explaining why your chosen ice feature is scientifically interesting.

I have chosen this ice feature because from my observations it has a glacier melting into a hole\dip. (See arrow above on *1st* picture) I would like to know what is causing this ice feature to happen. Also the Aeolian sand is interesting.

5. A paragraph hypothesizing what geologic processes you think are occurring to create this ice feature.

My hypothesis is that since my ice feature starts on a mountain. It's higher than the ice on the ground, so the sunlight is hitting the glacier perfectly to make it melt faster than the others. On top of that, maybe global warming is causing this glacier to melt faster than the others. Also it seems to catch the aeolian sand in the basin.

6. A paragraph asserting why you and your team should be funded to further investigate this area of Antarctica. (In other words, what are the potential benefits of exploring this feature?)

I think my team should be funded to investigate this part of Antarctica because we wonder where the aeolian sand came from. Aeolian means pertaining to winds. That means that Katabatic winds might be creating this unusual sand. Katabatic winds are winds caused by local downpour motion of cool, dense air that blows outward from the cool interior of an ice sheet toward the relatively warmer lower altitude coast. Analyzing the sand could tell us more about how the winds blow and the geologic history of the area.